



MEMORANDUM

To: Martin Alkire
From: Nelson\Nygaard Consulting Associates
Date: April 7, 2015
Subject: Google TDM Plan Evaluation Summary

PROJECT OVERVIEW

Google is proposing to construct four new office buildings.

- Landings: 803,004 sq. ft. office
- Huff: 328,369 sq. ft. office
- Charleston South: 1,436,601 sq. ft. office
- Shoreline: 821,865 sq. ft. office

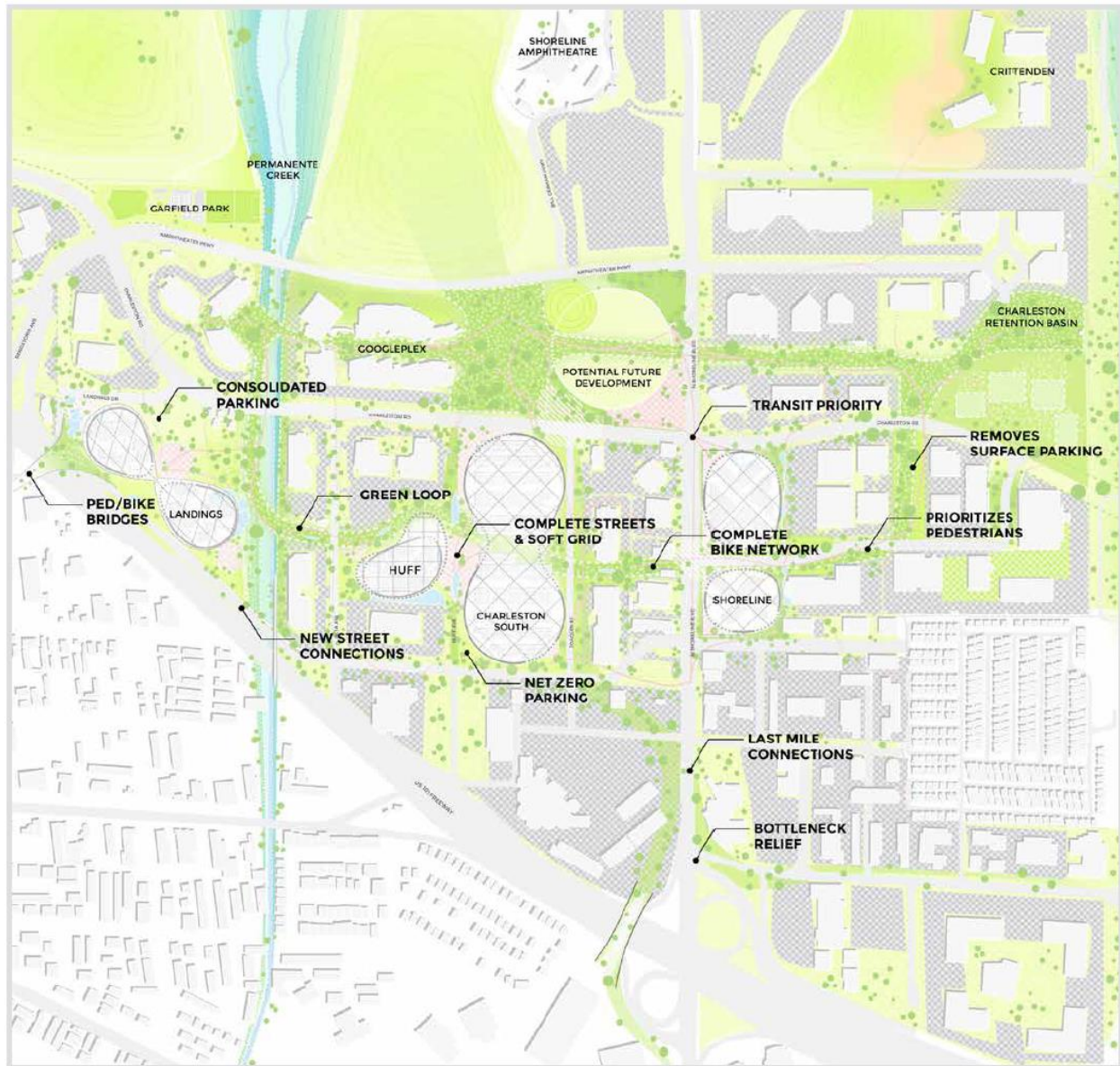
In addition to these buildings Google owns or lease an additional 4,361,624 square feet of office space in North Bayshore. Their current holdings plus the proposed project total 7,751,463 sq. ft. of office space. A total of 2,759 or 1.2 parking spaces per 1,000 square feet will be provided. This represents a net zero change from the amount of parking currently provided. Parking will be consolidated at the Landings site and will be allocated as follows:

- Landings: 2,530 spaces
- Huff: 22 spaces
- Charleston South: 20 spaces
- Shoreline: 0 spaces

A total of 31,004 employees will be associated with both existing and new Google properties. The breakdown by location is shown below:

- Landings: 3,212
- Huff: 1,313
- Charleston South: 5,746
- Shoreline: 3,287
- Other NBS: 17,446

Figure 1 Google Site Plan



Google is proposing to provide a wide variety of community benefits. An abbreviated list of transportation related benefits includes:

- “Open” campus to facilitate movement throughout North Bayshore, including a "Green Loop" for pedestrians and bicyclists
- Ped/bike bridge at Landings site
- Ped/bike bridge across Permanente Creek
- Easement for San Joaquin extension
- Expanded free community shuttle
- Shoreline Blvd. improvements per Precise Plan and Shoreline Blvd. Corridor Study
- La Avenida reconfiguration
- Plus others

TDM PLAN OVERVIEW

Strengths

Google has already established a robust TDM program that goes beyond the baseline requirements, including a transportation team dedicated to overseeing the TDM and mobility programs. Though their existing program they have been able to achieve a 46.3% SOV mode share. Given Google's experience with running a comprehensive TDM program they have the necessary internal structure to expand their program, as well as an understanding of what programs are working and where opportunities exist to encourage mode shift. The proposed package of additional TDM measures is very comprehensive and includes a wide range of programs to target different user groups. One significant measure of note is the new shuttle program to capture employees living within 15-30 miles.

Google's program has great potential to reduce vehicle trips for the district as a whole. Google is committed to reducing the SOV vehicle trip rate beyond the 45% SOV target and the 45% SOV target will be applied to not only the proposed project but the existing 4.4 million square feet they own or lease. Furthermore, Google is proposing to provide significant community benefits that would serve many other buildings and employers.

In addition, Google is proposing a net zero increase in parking which translates to a parking ratio of 1.2 spaces per 1,000 sq. ft. This is a significant commitment to better correlate supply to desired demand, and will strongly support the achievement of the trip reduction. Google will complement reduced parking ratios with active management of the parking supply through parking pricing and/or incentive programs.

Finally, Google will utilize a number of strategies to shift vehicle trips away from Shoreline Boulevard, as well as reduce the number of trips at the Shoreline gateway during the a.m. peak period.

- **Parking consolidation** - Parking will be consolidated at the Landings site which is located adjacent to the Rengstorff Avenue exit.
- **Mobile application** - Google will create a mobile app that provides real-time traffic and alternative mode information to direct users to the Rengstorff Avenue or San Antonio Road entrance points. This application could at some point be used as a disincentive for those drivers who use Shoreline by assigning them less favorable parking locations.
- **Improve Rengstorff gateway** – Google will work with the City of Mountain View to find ways to improve capacity at Rengstorff to make it a more attractive option to Shoreline.
- **Infrastructure improvements** – Google is proposing to fund or construct several projects which would improve Shoreline gateway capacity for vehicles, as well as transit vehicles. These include the Shoreline northbound off-ramp project and the reversible transit lane on Shoreline from US-101 to Plymouth Street.
- **Infrastructure improvements and programs to benefit non-Google employees** – Google will be constructing and funding projects such as the pedestrian and bicycle bridge, green loop bicycle facility, community shuttle, and bike sharing, enabling employees at other companies to shift modes and reduce off-site peak period vehicle trips.
- **Shifting trips outside of the a.m. peak period** – Google will continue to utilize and encourage telecommuting and flexible work schedule and off-peak shuttles services to shift trips outside of the a.m. peak period.

Given these strategies, Google anticipates that the percentage of their trips entering at Shoreline Boulevard will decrease from 54% today to 44%, the number of trips entering at Rengstorff Avenue will increase from 40% under existing conditions to 50% in the future, and the number of trips at San Antonio

will remain at 6%. These strategies, in combination with Google's trip reduction goals that go beyond the Precise Plan requirements, will result in fewer vehicles associated with Google entering at Shoreline than what exists today.

Issues to Address

For some of the additional TDM programs proposed, there is a lack of specificity regarding the amount of financial incentives that will be provided. Consideration should be given to setting subsidies at the level necessary to encourage mode shift.

Questions/Areas for Further Analysis

If the project moves forward, there are several areas where clarification and further analysis should be required from the applicant.

1. No information on the number of electric vehicle charging stations is provided, thus it is not clear at this time if the project meets the Precise Plan standards for this element.
2. Clarification on the parking ratio per 1,000 square feet is needed. Based on the square footage and number of parking spaces provided the ratio is 1.2 spaces per 1,000 square feet. However, Google states in their TDM plan that 0.82 spaces per 1,000 square feet will be provided.
3. Additional specifics on how employee parking will be managed through pricing and rewards programs.
4. Additional information on transit subsidy programs.

TDM PLAN CHECKLIST

The following checklist provides a more detailed examination of the proposed TDM Plan to determine if the submitted plan is in compliance with Precise Plan standards and the TDM Guidelines issued by the City of Mountain View.

Figure 2 Google TDM Checklist

Category	Description	Assessment
Parking		Meets Precise Plan Standards
Number of parking spaces	<ul style="list-style-type: none">Landings: 2,530 spacesHuff: 22 spacesCharleston South: 20 spacesShoreline: 0 spacesTotal: 2,759 spaces	Will provide less than the maximum amount allowed
Parking ratio	Overall ratio of 1.2 spaces per 1,000 sq. ft.	Will provide less than the maximum amount allowed
Location of parking	Parking will be consolidated at Landings site	Location is compliant per site design standards
Electric vehicle charging stations	No information provided	Unclear if the project meets standards
Vehicle Trip Cap		
Cap Established	<ul style="list-style-type: none">Landings: 1,591tripsHuff: 651 trips	Correctly calculated

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Category	Description	Assessment
	<ul style="list-style-type: none"> Charleston South: 2,847 trips Shoreline: 1,629 trips All other NBS: 8,644 trips Total: 15,362 trips 	
Exceptions	None requested	-
Impact on Gateways	Will shift trips outside of the a.m. peak period through telecommuting and flexible work schedules, consolidation of parking near Rengstorff Ave., community benefits will offset trips located at other sites.	Provides an adequate level of discussion per the direction of Addendum #2.
Required TDM Measures		Meets Precise Plan Requirements
Priority parking for carpools/vanpools	Currently provide. Will provide amount required under code. Also provide for electric vehicles, expectant mothers and GFleet car share.	Y
On-site Transportation Coordinator	Have a dedicated transportation team	Y
Bicycle parking, shower, changing facilities	Will provide more than required by PP at every location.	Y
Bike sharing	<ul style="list-style-type: none"> Currently have GBikes for employees. VBike for visitors. E-bikes (electric bikes) for commuting between campuses. Will locate 6 BABS pods on campus 	Y
Telecommute/Flexible work schedule	Currently offered	Y
Guaranteed Ride Home program	Currently offered	Y
TMA membership	Is a founding member of the TMA	Y
Ridematching services	Currently offered	Y
Shuttle services	<p>Currently offers commuter shuttles for employees and contributes to the MVGo shuttle service which serves all the buildings.</p> <p>Currently funds a community shuttle for the City of MV.</p>	Y
Additional TDM Measures		Has Committed to Implementing
Parking management plan	Could include elements such as points or awards for not driving, daily charges, or incentives	Y
Pre-tax commuter benefits	Currently offer this. Will be expanding to cover bicycles.	Y
Subsidized or free vanpools or carpools	Currently subsidizes vanpools. Will consider financial incentives, priority parking or other benefits to increase participation	Y
Subsidized or free transit passes	Will offer but parameters not yet defined.	Y

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Category	Description	Assessment
Expanded carpool matching	Will develop an enhanced ridematching system with 511.org or internally. To be rolled out in 2015. Could include reward/incentive component to increase participation.	Y
Commuter shuttle services	Will expand existing program to serve employees living 15-30 miles from the site with smaller vans.	Y
GRide	Currently offers on-demand transportation service for employee trips between campuses	Y
Biking financial incentives	Incentives such as cash payments or non-cash prizes for employees who bike	Y
On-site bicycle repair facilities	Bike Hub offers staffed repair services. Self repair stations located in bike parking areas	Y
Bike Buddy program	Will create a Bike Buddy program	Y
Bicycle give-away program	May be a free bike or use the Bike Hub	Y
Car sharing	Currently have their own fleet (GFleet) of shared vehicles and subsidize membership to external organizations (Zipcar and DriveNow)	Y
On-site amenities and services	Currently have onsite food service, fitness centers, ATMs, laundry, two childcare centers	Y
Funding district wide services	Expand existing community shuttle that Google funds	Y

CONCLUSION

Figure 3 provides a summary of the project in relation to key criteria. A set of evaluation criteria were established which reflect Precise Plan TDM standards, as well as the overarching transportation goals and objectives identified in the Precise Plan.

- **Parking supply and parking management** - what is the parking supply ratio for the project and are any innovative parking management strategies included?
- **Required baseline TDM measures** - Does the proposed TDM program include the 10 baseline required TDM measures identified in the Precise Plan and commit to implementing each program?
- **Additional TDM measures** - Does the plan include TDM strategies beyond the required baseline measures and commit to implementing these additional measures?
- **Organizational capacity** - Does the applicant identify the internal structure and positions that would be put in place to implement the programs identified and manage them on an on-going basis?

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- **Achievement of the 45% SOV mode share goal** - Given the package of TDM strategies and overall site design, how likely is the proposed TDM program to achieve a 45% SOV mode share?
- **Reduction of impacts to the Shoreline gateway** – Does the plan include a discussion of the impacts on the Shoreline gateway and how vehicle trips will be shifted away from Shoreline Blvd.?
- **Community benefits** - Does the proposed project include programs or physical infrastructure improvements that serve users outside of the applicant’s site?

Figure 3 Summary Evaluation of Google TDM Plan

Parking Ratio & Policies	Baseline TDM Requirements (out of 10)	Additional TDM Measures/ Innovation	Organizational Capacity	Achieve Mode Share Goals?	Reduce Shoreline Gateway Impacts?	Community Benefits
<ul style="list-style-type: none"> ▪ 1.2 per 1,000 SF ▪ Incentives ▪ Parking pricing ▪ Consolidation of parking 	10/10 - In compliance	High	High	Likely	Likely	<ul style="list-style-type: none"> ▪ Ped/bike bridge ▪ Shoreline improvements ▪ Community shuttle service ▪ Bicycle facilities ▪ Plus others